

**ABSTRACT**

Performance of mass flow controller may be vulnerable to pressure transients in a flow path to which the controller is coupled for the purpose of controlling the fluid flow. A system and method are provided for reducing or eliminate performance degradations, instabilities, and/or inaccuracies of a mass flow controller caused by changes in the pressure environment. In particular, a method and system are provided for compensating for pressure transients in the pressure environment of a flow path and mass flow controller.